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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/578,538

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EXAMINER

MIDKIFF, ANASTASIA

ART UNIT

PAPER NUMBER

2882

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/578,538	Applicant(s) BAUMANN ET AL.	
	Examiner ANASTASIA MIDKIFF	Art Unit 2882	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 December 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 December 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>5/4/06 & 6/7/06</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to: Claim 1, Line 6; Claim 3, Line 3; Claim 4, Line 7; Claim 6, Line 5; Claim 8, Line 5; and Claim 10, Line 2, the claims recite the phrase “can be supported” rendering the claim indefinite insofar as it is unclear whether the limitations following the phrase “can be” are or are not part of the invention as claimed.

Claims 2, 5, 7, 9, and 11-15 are rejected based upon their dependency.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-6, 8, and 10-13, as they are best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent to Watanabe (US 6,428,206 B1).

With respect to Claim 1, Watanabe teaches a positioning device (100) that comprises:

- an arched arm (4); and,

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- a base (6);
- wherein an x-ray detector (2) is supported on the arched arm (4, via arm 3) and an x-ray source (1) is supported on the arched arm (4) and are displaceable in the direction of the arched arm (arrow c, Figure 3); and,
- wherein the arched arm (4) is supported by the base (6) and is displaceable in the direction of the arch (arrow b, Figure 3; see Column 3, Lines 29-32).

With respect to Claim 2, Watanabe further teaches that:

- the arched arm (4) is supported in a second arched arm (5); and,
- the second arched arm (5) is supported in the base (6) and is displaceable in the direction of the arch of the second arched arm (arrow a, Figure 3; see Column 3, Lines 29-32).

With respect to Claim 3, Watanabe further teaches that the x-ray detector (2) and the x-ray source (1) are supported in the arched arm (3) and movable in the radial direction relative to the arch of the arched arm (arrow b, Figure 3; see Column 3, Lines 20-32).

With respect to Claim 4, Watanabe teaches a patient support device (Abstract) comprising:

- a positioning device (100) comprising:
 - an arched arm (4); and,
 - a base (6);

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- wherein an x-ray detector (2) is supported on the arched arm (4, via arm 3) and an x-ray source (1) is supported on the arched arm (4) and are displaceable in the direction of the arched arm (arrow c, Figure 3); and,
- wherein the arched arm (4) is supported by the base (6) and is displaceable in the direction of the arch (arrow b, Figure 3; see Column 3, Lines 29-32).

With respect to Claims 6 and 8, Watanabe teaches an x-ray machine (Abstract), comprising:

- a positioning device (100) comprising:
 - an arched arm (4); and,
 - a base (6);
- wherein an x-ray detector (2) is supported on the arched arm (4, via arm 3) and an x-ray source (1) is supported on the arched arm (4) and are displaceable in the direction of the arched arm (arrow c, Figure 3); and,
- wherein the arched arm (4) is supported by the base (6) and is displaceable in the direction of the arch (arrow b, Figure 3; see Column 3, Lines 29-32);
- an x-ray source (1) supported moveably in all directions in space and located separately from the positioning device (Column 3, Lines 20-24); and,
- an x-ray detector (2) supported moveably in all directions in space and located separately from the positioning device (Column 3, Lines 45-53).

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With respect to Claim 10, Watanabe further teaches that the x-ray detector (2; via arm 3) and the x-ray source (1) are supported in the arched arm (4) and moveable in a radial direction relative to the arch of the arched arm (Column 3, Lines 20-22 and 47-50).

With respect to Claims 5 and 11, Watanabe further teaches a patient support table (8), wherein the positioning device is located underneath the patient support table (Figure 2).

With respect to Claims 12 and 13, Watanabe further teaches that the x-ray source (1) is supported moveably in all directions and located separately from the positioning device (Column 3, Lines 20-24).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7, 9, 14, and 15, as they are best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe, as applied to Claims 6, 8, 13, and 12, respectively, above.

With respect to Claims 7, 9, 14, and 15, Watanabe teaches most of the elements of the claimed invention, including an x-ray imaging system (Abstract) wherein the x-ray source, digital x-ray detector, and positioning device move in a manner adapted to one

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another so that said source, detector, and positioning device assume a predetermined orientation to one another (Column 3, Lines 5-53).

Watanabe does not specifically recite a control unit for said positioning.

Digital x-ray imaging systems are known to have control units in the form of computers for synchronizing system movements and for image reconstruction.

It would have been obvious to one of ordinary skill in the art at the time of the invention to employ a control unit to perform the synchronized system movement of the apparatus of Watanabe, for faster and more accurate imaging of a patient.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent Documents to Grady (US 6,789,941 B1), Altman (US 7,170,972 B2), and Rasche et al. (US 2003/0072416 A1) teach apparatus for x-ray imaging with c-arm supports for the x-ray source and detector, and wherein the c-arm is slidably moveable in the direction of the arch of the c-arm.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANASTASIA MIDKIFF whose telephone number is (571)272-5053. The examiner can normally be reached on M-F 7-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Glick can be reached on 571-272-2490. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A. M./
Examiner, Art Unit 2882
9/19/08

/Edward J Glick/
Supervisory Patent Examiner, Art Unit 2882